

CLAIMS

[Claim 1]

An image forming method comprising
subjecting a planographic printing plate precursor to exposure using laser light in a wavelength range of 250 nm to 420 nm with a one-pixel drawing time of one millisecond or less,

wherein the planographic printing plate precursor comprising, on a support, an image recording layer that contains (A) a polymerization initiator, (B) a polymerizable compound, and (C) a binder polymer, and has photosensitivity in the wavelength range of 250 nm to 420 nm.

[Claim 2]

The image forming method of claim 1,
wherein the laser light wavelength is a wavelength selected from 405 nm, 375 nm, 365 nm, 355 nm, and 266 nm.

[Claim 3]

The image forming method of claim 1,
wherein exposure is performed using an optical system comprising: a DMD or GLV modulation element; and a 405 nm or 375 nm-wavelength semiconductor laser.

[Claim 4]

The image forming method of claim 1,
wherein the laser light wavelength is a wavelength selected from 365 nm, 355 nm, and 266 nm, and exposure is performed using an internal drum method.

[Claim 5]

A planographic printing plate precursor comprising, on a support, an image recording layer that contains (A) a polymerization initiator and (B) a polymerizable compound, has photosensitivity in a wavelength range of 250 nm to 420 nm, and is capable of being removed using printing ink and/or fountain solution,

wherein (D) a compound having a polymerizable group and a support adsorptive group is contained in at least the image recording layer or another layer.

[Claim 6]

The planographic printing plate precursor of claim 5,
wherein the compound (D) having a polymerizable group and a support adsorptive group is (E) a copolymer having (a1) a repeating unit containing at least one polymerizable group and (a2) a repeating unit containing at least one support adsorptive group.

[Claim 7]

The planographic printing plate precursor of claim 5 or 6,
wherein the compound (D) or the copolymer (E) has a hydrophilicity imparting group.

[Claim 8]

The planographic printing plate precursor of any one of claims 5 to 7,
wherein the polymerization initiator is a compound having an onium ion.

[Claim 9]

A planographic printing plate precursor comprising, on a support, an image recording layer that contains (A) a polymerization initiator, (B) a polymerizable compound, and (F) a filler, and is capable of being removed using printing ink and/or fountain solution,

wherein image recording can be performed using a light source which emits light in a wavelength range of 250 nm to 420 nm.

[Claim 10]

The planographic printing plate precursor of claim 9,
wherein the filler has a lipophilic group on a surface thereof.

[Claim 11]

The planographic printing plate precursor of claim 9 or 10,
wherein the filler has a polymerizable functional group on a surface thereof.

[Claim 12]

A planographic printing method comprising:
subjecting the planographic printing plate precursor obtained using the image forming method of any one of claims 1 to 4, which has been exposed, to development using a developer solution or development-on-machine performed with supply of printing ink and/or fountain solution; and
then printing.

[Claim 13]

A planographic printing method comprising:
subjecting the planographic printing plate precursor of any one of claims 5 to 12 to image-like exposure using a light source which emits light in the wavelength range of 250 nm to 420 nm; and
then printing with supply of printing ink and fountain solution.

[Claim 14]

The planographic printing method of claim 13,
wherein the light source is a laser.